What is claimed is:

1. A medical device, comprising

a blood-impermeable wall defining a cavity having a lumen through the wall at a first end opposite a second end, the wall including a flexible section;

a frame attached to the wall; and

an actuation system attached to the frame for moving the frame between an expanded position and a contracted position.

2. The medical device of claim 1, wherein the actuation system comprises a shape memory material having a transformation temperature and means for moving the shape memory material through its transformation temperature.

3. The medical device of claim 2, wherein the actuations system comprises struts formed of the shape memory material, and wherein the struts are electrically connected to a voltage source.

4. The medical device of claim 1, wherein the actuation system comprises a balloon and an inflation lumen fluidly attached to the balloon.

5. The medical device of claim 1, wherein the actuation system comprises an electroactive polymer.

6. The medical device of claim 1, wherein the cavity has a volume of between 40 cc and 100 cc.

7. The medical device of claim 6, wherein the cavity has a volume of between 60 cc and 85 cc.

8. The medical device of claim 1, wherein a cross-section of the cavity at the first end is larger than a cross-section of the cavity at the second end when the frame is in the expanded position.

9. The medical device of claim 8, wherein the cavity has a generally conical shape when the frame is in the expanded position.

10. The medical device of claim 8, wherein the cavity has a slightly flattened conical shape when the frame is in the expanded position.

11. The medical device of claim 1, wherein the frame comprises a first set of struts extending out from a position proximate the second end of the wall.

12. The medical device of claim 11, further comprising a central shaft extending longitudinally from the second end, and wherein the actuation system comprises a second set of struts attached to the central shaft.

13. The medical device of claim 12, where the second set of struts is slideably attached to the first set of struts.

14. The medical device of claim 12, wherein the second set of struts is slideably attached to the central shaft.

15. The medical device of claim 12, wherein the central shaft comprises a sliding member having a proximal end, a distal end and a lumen therebetween and a core member at least partially disposed in the lumen of the sliding member, wherein the second set of struts is attached to the sliding member of the central shaft.

16. The medical device of claim 15, further comprising a sheath disposed over a portion of the central shaft proximal the actuation system.

17. The medical device of claim 1, further comprising an anti-clotting agent.

18. An intravascular pump, comprising:

a flexible wall defining a pumping chamber; and

a pumping mechanism including a frame attached to the wall.

19. The pump of claim 18, wherein the pumping mechanism includes a central shaft and moveable struts extending between the central shaft and the frame.

20. The pump of claim 19, wherein the pumping mechanism includes a balloon.

21. The pump of claim 19, wherein the pumping mechanism further includes a member made from a shape memory alloy having a transformation temperature and means to move the shape memory alloy through the transformation temperature.

22. The pump of claim 21, wherein the shape memory alloy comprises Nitinol.

23. The pump of claim 19, wherein the pumping mechanism further includes an electroactive polymer.

24. The pump of claim 19, further comprising a control system for controlling the pump.

25. The pump of claim 24, wherein the control system comprises a sensor for measuring heart activity.

26. The pump of claim 24, wherein the control system includes an interface for use with a pacemaker.

27. A method for installing a pump intravascularly, comprising the steps of:

providing a percutaneous catheter;

providing a pump;

disposing the pump in the percutaneous catheter;

moving the percutaneous catheter proximate a desired position in the intravascular system;

withdrawing the percutaneous catheter; and

leaving the pump.

28. The method of claim 27, wherein the desired position is a left ventricle.

29. The method of claim 28, further comprising the step of pushing the pump from the percutaneous catheter.

30. The method of claim 29, wherein the pump includes an elongate member.

31. The method of claim 30, wherein the pump includes a flexible wall defining a pumping chamber.

32. The method of claim 31, wherein the pump includes a plurality of support struts attached to the flexible wall.